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ABSTRACT

A guide to help physicians identify handicapping conditions in young children and to refer the children to educational and habilitative services at an early age is presented. The first section describes the rationale for early intervention and includes current research that supports and documents the benefits of infant and preschool special education. The second section, on identification and screening, covers medical and developmental screening, legal and medical definitions of handicapping conditions, at risk factors, and screening instruments. For 23 screening instruments, information is provided on publisher, author, purpose, administration time, age range, test items, scoring, standardization, reliability, and validity. Procedures for conducting auditory and visual screenings are also outlined. The final section provides a description of programs and resources that are available in New York State for handicapped infants, preschoolers, and their families. These include Early Childhood Direction Centers, Committees on the Handicapped, family court petitioning, deaf infant programs, state operated and state supported schools, Head Start, and Special Education Training and Resource Centers (SETRCs). Appended materials include the following: brief annotations for 13 publications available through New York State, 90 references, the text of New York State regulations concerning handicapped children, and lists of Early Childhood Direction Centers and SETRCs with mailing addresses and telephone numbers. (SEW)

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IDENTIFICATION AND REFERRAL OF YOUNG HANDICAPPED CHILDREN --- THE PHYSICIAN'S ROLE

THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
OFFICE FOR EDUCATION OF CHILDREN
WITH HANDICAPPING CONDITIONS
ALBANY, NEW YORK 12234

OCTOBER 1982

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**IDENTIFICATION AND REFERRAL OF
YOUNG HANDICAPPED CHILDREN**

The Physician's Role

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TO THE READER:

This document contains a large amount of reference material, some of which is included within the main body of the document. In order to assist the reader, that information which we consider to be reference material has been coded by darkening the upper corner of the page. This will enable you to screen support materials from the text and refer to the darkened pages if more in-depth information is desired.

INTRODUCTION

The physician plays an important and unique role in a child's early years of development. The child's doctor may be the first to suspect that a child has a handicapping condition. By extending physician participation in the identification and referral process, more children with handicapping conditions can be identified and referred to educational and habilitative services before they reach school age. Enrollment in infant and preschool programs can minimize the development of more severe handicaps, can lessen the severity of later problems and can enhance a child's prognosis.

"Identification and Referral of Young Handicapped Children" has been developed to assist pediatricians and family practitioners in providing more comprehensive services to infants, preschoolers and their families. It is anticipated that this information will facilitate interactions between the medical, educational and habilitative communities.

The physicians' guide is organized into three sections:

- The first describes the rationale for early intervention and includes current research which supports and documents the benefits of infant and preschool special education.
- The second section provides comprehensive information about the identification and screening process. Medical and developmental screening, legal and medical definitions of handicapping conditions, at-risk factors and information about available screening instruments are included. Procedures for conducting auditory and visual screenings are also outlined.
- The final section provides a description of programs and resources which are available in New York State for handicapped infants, preschoolers and their families.

As a physician, you can be instrumental in the early identification of handicapping conditions and can assure that handicapped children are linked to necessary educational and habilitative services at an early age.

SUPPORT FOR EARLY INTERVENTION

Since 1976, the number of available educational services for young handicapped children, and those suspected of being handicapped, has increased by 18 percent. A study of 75 rural school districts indicated that this figure is even higher for rural areas. In 1980, 63 percent of the rural school systems surveyed provided special education services for handicapped three and four year olds. Only 7 percent of these rural districts had provisions for this population in 1975 (Division of Educational Services, Special Education Programs, 1981). Despite the increase in the number of services, many young handicapped children remain unidentified and subsequently, unserved.

Researchers have been conducting studies to determine the long-and short-range effects of early intervention and stimulation since the 1930's. Results indicate that early programming can lessen the severity of handicapping conditions and can promote growth and development. A number of efficacy studies have demonstrated that greater gains are made over a short period of time by handicapped children who have received early intervention, when compared to similar children who have not received any preschool education. There is also empirical research which documents that young handicapped children who receive educational services during their preschool years are apt to benefit from such early experiences many years later, as they are more likely to be educated in regular settings during their elementary and secondary schooling.

Short-Term Effects

Clunies-Ross (1974)

A study of Down Syndrome Infants, ages three to thirty-seven months, was conducted to assess the effects of early intervention. All the children who had received stimulation through an educational program made significant gains when tested on the Early Intervention Developmental Profile, an assessment tool which measures language, motor, self-help and personal social skills. Over a 12-month period, the youngest children made the highest developmental gains.

Adelson and Fraiberg (1975)

Ten blind infants were the subjects in this longitudinal study. When compared to blind infants who had not received any intervention, those who had early intervention performed within the expected ranges of sighted infants in neuromuscular maturation and postural achievement.

Horton (1976)

Severely hearing impaired children who had been enrolled in a program before their third birthday made significant progress when compared to peers who had not entered the program until after age three. In addition, their language and achievement scores were similar to those of normal hearing peers.

Zausmer, Peuschel and Shea (1972)

In this study, infants with Down Syndrome who had been enrolled in a parent/infant program attained developmental milestones earlier than infants with the same handicapping condition who had not received infant education.

Long-Term Effects

Lazar and Darlington (1979)

A comprehensive follow-up study of eight longitudinal studies demonstrated that at-risk children could benefit from early intervention. At age six, the IQ scores of those children who had preschool programming were higher than their peers who had not received services during the preschool years. By fourth grade their scores on achievement tests were significantly higher. Lazar and Darlington also found that enrollment in preschool programs decreased the likelihood of placement in a special education setting or grade retention up to 18 years later.

Schweinhart and Weikart (1980)

A 16-year longitudinal study conducted by Lawrence Schweinhart and David Weikart found that children enrolled in an early intervention program demonstrated higher scholastic achievement, were more motivated and placed a higher value on schooling when compared to peers who had not had preschool education. The study followed 123 children from low income families who had been diagnosed as borderline retarded. Some were enrolled in the Perry Preschool Project in Ypsilanti, Michigan and others received no intervention services. By high school age, the number of students requiring special education was more than double for the children who had not received early intervention programming. Of those who had attended the preschool program, 19 percent received one or more years of special education as compared to 31 percent in the control group.

Karnes, Schwedel, Lewis, Ratts and Esry (1981)

Follow-up data was obtained on 86 handicapped children who had been enrolled in an early intervention program from August 1973 to June of 1979. These children had been classified as speech and/or language impaired, cognitively impaired, physical/sensory-motor impaired, specific learning disabled, behavior disordered or educationally handicapped. The short-term effectiveness of the program had already been documented by the noted statistically significant gains that were made in intellectual functioning during their enrollment in the program. An average of 13.4 points was gained from pre- to post-testing on the Stanford-Binet Intelligence Test.

Results from the follow-up data indicated that overall, the children had made a successful transition into school. Eighty percent were enrolled in regular educational classrooms in kindergarten through grades five. Only 18 percent of those children had been retained a grade, which indicates that most were performing in accordance with grade level expectations. Twenty percent of the sample were in nongraded special education classes. Of those, eight percent were placed directly in special education settings when they left the preschool program. Parents also reported that their children, whether placed in a regular or special education settings, were performing adequately in school. Ninety-three percent felt that their children's current success in school would not have been as great, if they had not been enrolled in the early intervention program.

Hayden, Morris and Bailey (1977)

One hundred children were traced for up to nine years after they graduated from a special preschool program at the University of Washington. These children had been classified as mentally retarded, speech delayed or as having behavioral disorders and at the time of the study were enrolled in kindergarten through eighth grade. Hayden, Morris and Bailey found that 34 percent of the children were in regular education programs. Twenty-four percent were placed in special education programs, but were reportedly functioning cognitively as well as the upper 75 percent of the "graduates" who were in regular classroom settings. More importantly, cognitive gains achieved during the early intervention program were maintained.

Dmitriev, Hayden and Haring (1981)

This study found that after six years of education in a public school program, children with Down Syndrome, who received preschool programming, scored higher on the Peabody Picture Vocabulary Test (PPVT) than other children with the same handicapping condition or with other developmental delays, who had not had early education. The PPVT is a short diagnostic tool which assesses a child's ability to point to or name pictures on request, thereby measuring his receptive language abilities. Performance on the test can be interpreted into mental age and IQ scores. The handicapped youngsters who had received early intervention also obtained higher scores on the Vineland Social Maturity Scale, a test which measures a child's self-help, self-direction, occupational, communication, locomotion and socialization skills. The findings from Dmitriev, Hayden and Haring's study support providing intervention as early as possible, since the highest achievers were those children who had been enrolled in intervention programs since infancy. In addition, none of the children who were in the lowest group of achievers had been in infant stimulation programs.

Despite the results of these studies and of other research, knowledge about how an infant or toddler learns continues to be limited. The learning process and potential growth of a young handicapped child is even more difficult to ascertain. Continued efforts need to be made to address the many unanswered questions about the young handicapped learner.

Physicians are in a difficult role as they often are confronted with the inability to identify with certainty potentially handicapped children at an early age. Some handicapping conditions are identifiable at birth, but most are more

readily recognized as a child matures. If the diagnosis of a child as handicapped is incorrect, it can be extremely hard on the parents. If an incorrect diagnosis of non-handicapped is made, the child will not receive needed services and intervention will be delayed. Screening can help identify children who are in need of further testing so a correct diagnosis can be made.

Cost Effectiveness

Schweinhart and Weikart (1980)

Reviewing the data from their 16-year study, Schweinhart and Weikart calculated that \$3,353 per child were saved by the public school system, since children who had preschool education required fewer years of special education.

Garland, Swanson, Stone and Woodruff (1981)

Data from the Texas Consortium Study of 806 children, the National Diffusion Network Review of programs in seven states, the Pattelle Research Institute study of the Handicapped Children's Early Education Program (HCEEP) network and questionnaires from state education agencies were surveyed. Results indicated that the cost of education for children who enrolled in an intervention program before age two was \$2,021 a year. The costs for children who did not receive services until school age were more than double those figures. They also compared the cost of 18 years of education for children who receive initial intervention services at infancy, during the preschool years and at age six. The costs of education increases as delays in intervention increase. Their findings are summarized below:

<u>Time of Intervention</u>	<u>Cost of 18 Years of Education</u>
Infancy	\$37,273
Preschool	\$37,600
Age Six	\$46,816 - \$54,340

The studies cited are only a sampling of the existing research on early intervention for handicapped children. Yet it is evident that early programming can affect growth in many areas, minimizing the development of more severe problems, ameliorating some problems already extant, and enhancing a child's prognosis. In addition, children who receive services early in their development seem to have the most likelihood for success. Early programming is also cost effective over time, and decreases a child's chances of remaining in a special education setting throughout schooling.

In addition to the benefits early intervention has for young handicapped children, evidence suggests early childhood special education programs are cost effective over time. Various studies have shown that taxpayers will spend less money to provide education to children who have been enrolled in early intervention programs as they proceed with their schooling.

EARLY IDENTIFICATION

Current research suggests that the application of intervention techniques at a very early age can maximize a handicapped child's potential. The physician is often the first professional called upon to determine whether there is a condition that might affect the young child's overall development and future success. Most parents look to the physician for assurance that their child is developing normally.

Most intervention programs provide medical, educational or habilitative services to young children who have a specific handicapping condition or who are at-risk of developing a handicapping condition. However, the terms used to designate a handicapping condition vary and can denote etiological factors, medical or developmental conditions or educational problems. It is important to keep in mind that definitions of handicapping conditions often differ among medical, educational and social disciplines.

Definition of Handicapping Conditions Under Educational Law

In New York State, the Regulations of the Commissioner of Education define a handicapped child as "a person... who, because of mental, physical or emotional reasons, has been identified as having a handicapping condition and can receive appropriate educational opportunities from special services and programs approved by the department." Educationally handicapped children must be classified according to the following handicapping conditions in order to be eligible for special education services:

Autistic	Speech impaired
Emotionally disturbed	Visually impaired
Learning disabled	Orthopedically impaired
Mentally retarded	Other health-impaired
Deaf	Multiply handicapped
Hard of hearing	

(See Appendix A.)

For a school-age child this determination is made by a multidisciplinary team, the Committee on the Handicapped (COH), which also makes program placement recommendations based on the child's academic, social, physical and management needs. In some communities COHs also review program placements for handicapped children below the age of five.

Definition of Developmental Disability Under the Mental Hygiene Law

Another term often used to describe handicapping conditions is developmental disability. In New York State, the Mental Hygiene Law defines this as a disability of a person which is attributed to conditions such as mental retardation, cerebral palsy, epilepsy, neurological impairment, autism or dyslexia. The general intellectual functioning and adaptive behavior of a person who is developmentally disabled resembles that of mentally retarded individuals and/or requires similar treatment and services. Furthermore, the Mental Hygiene Law states that the condition is continuous, constitutes a substantial handicap to the individual and originates before such persons attain age 18. To be eligible for services for the developmentally disabled through the Office of Mental Retardation and Developmental Disabilities (OMRDD), a child must exhibit these characteristics. (See Appendix B.)

Clinical Definitions

A clinical definition refers to developmental disabilities as physiological reflections of central nervous system dysfunction which vary in degrees and cause deficits in intelligence, adaptive and/or social functioning. Their outcomes are variable, because the affected infant or child is continually developing and changing.

Below are some conditions which are associated with developmental delays. They may or may not constitute a handicapping condition, depending on whether or not the child's educational performance is adversely effected.

mental retardation	autism
cerebral palsy	congenital rubella
epilepsy	perinatal meningitis/encephalitis
congenital cytomegalovirus	hyperbilirubinemia
maternal toxemia	lead intoxication
maternal alcoholism	storage diseases
perinatal hypoxia	hypothyroidism
phenylketonuria	Sturge-Weber syndrome
neurofibromatosis	primary microcephaly
tuberous sclerosis (myoclonic epilepsy)	hydrocephaly
meningomyelocele	Down Syndrome
Klinefelter XXY	Turner XO
prematurity	environmental deprivation

Screening

There are several screening methods which you can employ during routine medical check-ups to test for the existence of a potential problem. Assessing a child's at-risk status, conducting developmental screenings and doing visual and auditory examinations can facilitate the identification process. The following section describes at-risk factors and developmental, auditory and visual screening methods that you may wish to consider.

Screening is a preliminary method of distinguishing from the general population those children who may possibly have a handicapping condition. It provides general information about a child's overall growth and development and may signal the existence of a problem. Results of screening may indicate a need for further evaluation. However, information gained from screening instruments should not be used to label children or to develop an individual program. A comprehensive evaluation will more accurately diagnose the child's problem and give information which can be used to plan his treatment program. Such assessment can also confirm or dispel the questions or concerns raised by the screening.

At-Risk Factors

Some handicapping conditions can be identified at birth. Others are not so obvious, and may only become evident as the child matures. An infant is often first distinguished from others by looking at his risk status. Tjossem (1976) categorized three types of risk factors.

- Biological risk refers to the infant whose prenatal, perinatal, neonatal and early developmental stages involve an insult to the central nervous system (CNS) which increases the probability of aberrant development.
- Established risk refers to the infant whose condition is detected early and is related to a specific syndrome or cluster of findings, such as Down Syndrome or hydrocephalus.
- Environmental risk involves the infant who has a high probability for delayed development because of limited family care, health care and physical and social stimulation.

"Another way to view risk is in terms of its onset during three major developmental periods" (Ramey, Trohanis and Meyer, 1980, p.1.11). These factors include:

Prenatal period

mutant genes
radiation
toxic chemicals
harmful drugs
metabolic disorders
placental dysfunction
nutritional deprivation
maternal infection

Perinatal period

disorders of labor and delivery
neonatal medications
prematurity
cardiopulmonary problems
congenital malfunctions
metabolic disorders
infections

Postnatal period

acute illness
chronic disease
accidents/poisoning
malnutrition
late onset CNS disorders
syndromes
poverty
sensory impairment
environmental toxins
family dysfunction
iatrogenic illness
sociocultural disadvantages

(Ramey, Trohanis and Meyer,
1980, p.1.12)

A child who is determined to be at-risk for developing a handicapping condition should be observed carefully as he matures. Regularly scheduled follow up by the physician or office staff can assure that he is developing normally and that any problems which may arise are detected and treated as early as possible.

Developmental Screening

Developmental screening compares a child's profile with norm levels based on the performance of age-appropriate peers. If conducted in conjunction with auditory and visual screening and a medical examination, an overall picture of the child's major strengths and needs can be developed. Information about language, gross and fine motor, cognitive and personal-social skills can be obtained from a developmental screening instrument. By comparing a child's skills with the levels which are expected at that age, professionals can begin to see if there are any lags in development and in what areas these deficits might lie. As a physician, you may conduct developmental screenings yourself, have your staff become proficient in administering these testing instruments or refer your patient to another physician or professional who specializes in this area.

Many screening instruments have been developed and are available through publishers, clearinghouses and local agencies. Since they are generally quick, easy to administer and require few materials, they can be readily incorporated into an office visit. However, a screening instrument should be carefully selected. It may be helpful to consider the following:

- Is the screening instrument designed for group or individual administration?
- Who can administer the test and is training necessary?
- Is it standardized and on what population?
- What are its reliability and validity coefficients?
- How long does it take to administer?
- Does it cover each of the major developmental areas adequately?
- Is the age range appropriate?
- What is the cost and durability of the instrument?
- Are the results easy to interpret?
- What is the rate of overreferral or underreferral?

Developmental screening should yield general information about a child's overall development. Some examples of tasks that might be included on a screening instrument are as follows:

- Language tasks which would require the child to respond to sound, identify pictures, follow verbal directions or answer simple questions.
- Motor tasks which would involve head control, manipulating objects, using crayons or throwing a ball.
- Cognitive tasks which sample long- and short-term memory, object permanence, matching colors or sorting shapes.
- Personal-social tasks that would indicate feeding and toileting skills, ability to play with others or ability to initiate self-directed activity.

Most screening tests are scored based on task mastery. However, informal observation of how a child attacks each task can provide additional information about a child's skill level. For example, a child may be able to build a tower of blocks, but may hold the blocks awkwardly or have a difficult time lining them up. This could be indicative of a fine motor or visual perceptual problem. Careful observation on other test items may confirm or dispel such suspicions.

Additional information about children can be obtained by observing how they interact with family members during the office visit and how the parents react to

this behavior. The parents' anxiety level and ability to cope with existing or potential problems can have a major impact on a child's behavior. In some situations both the parent and child may be in need of services. Your observations can be valuable in helping to determine the need for intervention.

Most pediatricians and family practitioners have full schedules which can be obstacles to incorporating developmental screenings into their practices. A variety of strategies have been used to eliminate these barriers. For example, modifying regular examination schedules so that children come into the office at certain age levels may enable you to implement screening instruments at designated times in a child's development. This will make scoring easier and enable you to structure office visits so sufficient time is allotted for developmental screening. Posting a developmental growth chart on your wall for easy access can facilitate informal testing in some skill areas and be a valuable reference for discussions with parents.

A brief summary of some screening instruments available for infants and young children follows. General information about each test is included on the following chart. More descriptive information about each instrument can be found on pages 13 to 29. Inclusion of these instruments in this text should not be interpreted as an endorsement by the New York State Education Department. The listing is not all inclusive, but will provide you with general information about available screening tests.

Screening Instrument	Administration		Skill Areas					Descriptive Information Found On
	Age Level	Time Required	Cognitive Development	Language Development	Motor Development	Personal-Social Development	Visual Perception	
ABC Inventory to Determine Kindergarten and School Readiness	4 to 6 years	8 to 9 minutes	X	X	X			Page 13
Boyd Developmental Progress Scale	0 to 8 years	10 to 20 minutes		X	X	X		Page 14
Carolina Developmental Profile	2 to 5 years	30 minutes	X	X	X		X	Page 14
CCD Developmental Progress Scale	0 to 8 years	10 to 20 minutes		X	X	X		Page 15
Communicative Evaluation Chart From Infancy to 5 Years	3 months to 5 years	observation/ 6 month intervals		X	X	X	X	Page 15
Comprehensive Identification Process (CIP)	2.5 to 5.5 years	35 to 40 minutes	X	X	X	X	X	Page 16
Denver Developmental Screening Test (DDST)	6 weeks to 6.4 years	20 minutes		X	X	X		Page 17
Denver Prescreening Developmental Questionnaire (PDQ)	3 months to 6 years	5 to 15 minutes		X	X	X		Page 18
Developmental Activities Screening Inventory (DASI)	6 months to 5 years	25 to 30 minutes	X	X	X			Page 18
Developmental Guidelines	3 to 6 years	not available	X	X	X	X		Page 19
Developmental Key for Assessing Children's Growth	Preschool to first grade	10 to 15 minutes		X	X	X		Page 19
Developmental Profile	6 months to 12 years	30 to 40 minutes	X	X	X	X		Page 20

Screening Instrument	Administration		Skill Areas					Descriptive Information Found On
	Age Level	Time Required	Cognitive Development	Language Development	Motor Development	Personal-Social Development	Visual Perception	
Lexington Developmental Scale	Birth to 6 years	30 to 45 minutes	X	X	X	X		Page 21
McCarthy Screening Test (MST)	4 to 6.5 years	20 minutes	X	X	X		X	Page 22
Memphis Comprehensive Developmental Scale	3 months to 5 years	untimed	X	X	X	X		Page 23
Preschool Attainment Record	6 months to 7 years	20 to 30 minutes	X	X	X	X		Page 23
Preschool Screening System	3 to 6 years	15 to 20 minutes	X	X	X		X	Page 24
Rapid Developmental Screening Checklist	1 month to five years	2 to 3 minutes	X	X	X	X		Page 24
Revised Denver Developmental Screening Test (DDST-R)	6 weeks to 6.4 years	5 to 7 minutes		X	X	X		Page 25
Revised Developmental Screening Interview	1 to 26 months	15 to 30 minutes		X	X	X		Page 26
Riley Preschool Screening Inventory	3 to 6 years	3 to 10 minutes	X		X	X	X	Page 27
Slossen Intelligence Test	1 month to adulthood	10 to 20 minutes	X	X	X			Page 28
Vineland Social Maturity Scale	Birth to 30 years	20 to 30 minutes		X	X	X		Page 29

**ABC INVENTORY TO DETERMINE KINDERGARTEN
AND SCHOOL READINESS, 1965**

PUBLISHER: Research Concepts
1368 E. Airport Road
Muskegon, Michigan 49444

AUTHOR: N. Adair and G. Blesch

PURPOSE: To determine school readiness

TIME: 8 to 9 minutes

AGE RANGE: 4-6 years of age

ITEM DESCRIPTION: Test items involve language, reasoning, motor and school readiness. Tasks include drawing, copying, folding, counting, recalling of general information, recognizing colors, discriminating sizes, and understanding time concepts.

SCORING: Relatively easy

STANDARDIZATION: 600 children entering school over a three-year period

RELIABILITY: The manual states that reliability is based on the test score means of a group who took the test in 1962 and a group who took the test in 1964. No coefficients are reported.

VALIDITY: Of the sample of 83 children who took the test and who were identified as probably having problems, 86% failed their first year of kindergarten.

THE BOYD DEVELOPMENTAL PROGRESS SCALE, 1974

PUBLISHER: Inland Counties Regional Center, Inc.
P.O. Box 6127
San Bernadino, California 92412

AUTHOR: R.D. Boyd

PURPOSE: To identify developmental skills

TIME: 10 to 20 minutes

AGE RANGE: Birth to 8 years

AREAS OR SUBTESTS: Motor, communication and self-sufficiency skills

SCORING: Relatively easy

STANDARDIZATION: From other tests and earlier research

VALIDITY: .95 correlation with 1972 norms for the Stanford-Binet

CAROLINA DEVELOPMENTAL PROFILE, 1975

PUBLISHER: Walker Educational Book Company
720 Fifth Avenue
New York, NY 10019

AUTHOR: D.L. Lillie and G. Harbin

PURPOSE: To determine a child's developmental skills in all areas

TIME: 30 minutes

AGE RANGE: 2-5 years of age

AREAS OR SUBTESTS: Gross motor, fine motor, visual perception, reasoning, receptive language, expressive language

SCORING: Relatively easy; interpreted as a developmental age; checklist format

STANDARDIZATION: Not reported

RELIABILITY: Manual indicates that this is irrelevant, although the instrument has face reliability in assessing a child's behavior over time.

VALIDITY: Manual indicates that this is irrelevant.

CCD DEVELOPMENTAL PROGRESS SCALE, 1969

PUBLISHER: Inland Counties Regional Center, Inc.
P.O. Box 6127
San Bernadino, CA 92408

TIME: 10-20 minutes

AGE RANGE: Birth to 8 years of age

AREAS OR SUBTESTS: Motor, interpersonal-communication, and self-sufficiency skills

ITEM DESCRIPTION: There are 150 items which can be scored by direct observation or parent report. Verbal responses are required.

SCORING: Relatively easy

STANDARDIZATION: Not reported

RELIABILITY: Reported as adequate

VALIDITY: Concurrent and face validity are reported as greater than .75.

COMMUNICATIVE EVALUATION CHART FROM INFANCY TO 5 YEARS, 1963

PUBLISHER: Educator's Publishing Services, Inc.
75 Moulton Street
Cambridge, Mass. 02138

AUTHOR: R.M. Anderson, M. Miles and P.A. Matheny

PURPOSE: To detect childhood communicative disabilities

TIME: Observations made at six-month intervals

AGE RANGE: 3 months to 5 years of age

AREAS OR SUBTESTS: Language and performance

ITEM DESCRIPTION: The test is a 4-page checklist of developmental tasks.

SCORING: Relatively easy and reported as chronological ages.

STANDARDIZATION: Not available

RELIABILITY: Not available

VALIDITY: Not available

COMPREHENSION IDENTIFICATION PROCESS (CIP), 1975

PUBLISHER: Scholastic Testing Service, Inc.
480 Meyer Road
Bensenville, ILL. 60106

AUTHOR: R. R. Zehrbach

PURPOSE: To identify preschool children in need of special education, medical or habilitative services

TIME: 35 to 40 minutes

AGE RANGE: 2.5 to 5.5 years of age

AREAS OR SUBTESTS: Cognitive-verbal, fine motor, gross motor, speech and expressive language, hearing, vision, social/affective and medical history

SCORING: Relatively easy

STANDARDIZATION: 142 3-5 year old, white, middle class children from a small midwest rural community

RELIABILITY: Not reported

VALIDITY: 90% of children who tested as having problems, had special needs when diagnosed by a comprehensive evaluation.

DENVER DEVELOPMENTAL SCREENING TEST (DDST), 1975

PUBLISHER:	Lacoda Project and Publishing Foundation East 51st Street and Lincoln Street Denver, Colorado 80214
AUTHOR:	W.K. Frankenburg and L.B. Dodds
PURPOSE:	To detect children who have developmental delays
TIME:	20 minutes
AGE RANGE:	6 weeks to 6.4 years of age
AREAS OR SUBTESTS:	Personal-social, fine motor-adaptive, language and gross motor skills
ITEM DESCRIPTION:	The DDST consists of 105 developmental normed items.
SCORING:	Relatively easy. Individual items are scored as either pass, pass by report, refusal, no opportunity to observe, or fail. The DDST determines the individual to be normal, abnormal, questionable, or untestable.
STANDARDIZATION:	1,036 Denver area children from 2 weeks to 6.4 years of age.
RELIABILITY:	Data indicates a test-retest reliability of .97 and an interobserver reliability of .90.
VALIDITY:	A .97 correlation with the Yale Developmental Examination. A positive correlation between DDST scores and IQ's is also reported.

DENVER PRESCREENING DEVELOPMENTAL QUESTIONNAIRE (PDQ), 1977

PUBLISHER: Lacoda Project and Publishing Foundation
East 51st and Lincoln Street
Denver, Colorado 80216

AUTHOR: W.K. Frankenburg, W.J. Van Doornick, T.N. Liddell, N.P. Dick

PURPOSE: To find individuals who should be more thoroughly screened by the Denver Developmental Screening Test. It is estimated that 30% of the children who take the PDQ will need to take the DDST.

TIME: 5-15 minutes

AGE RANGE: 3 months to 6 years of age

AREAS OR SUBTESTS: Personal-social, fine motor-adaptive, language and gross motor skills

SCORING: Relatively easy

STANDARDIZATION: 1,027 physicians and public health personnel and 1,115 parents

VALIDITY: The Denver PDQ takes its validity from the DDST.

DEVELOPMENTAL ACTIVITIES SCREENING INVENTORY (DASI), 1977

PUBLISHER: Teaching Resources Corporation
50 Pond Park Road
Hingham, MA 02043

AUTHOR: R.F. DuBose and M.B. Langley

TIME: 25-30 minutes

AGE RANGE: 6-60 months of age

AREAS OR SUBTESTS: Fine motor, imitative behavior, identification, classification, matching, number concepts and response to commands.

ITEM DESCRIPTION: Nonverbal developmental tasks

STANDARDIZATION: Not reported

RELIABILITY: Not reported

VALIDITY: Not reported

DEVELOPMENTAL GUIDELINES

PUBLISHER:	University of Illinois Press Urbana, Illinois 61801
AUTHOR:	M. Karnes
PURPOSE:	To determine if child is progressing normally or if further diagnostic evaluation is needed
AGE RANGE:	3 to 6 years
AREAS OR SUBTESTS:	Gross motor, fine motor, cognitive-linguistic-verbal, self-help and social skills
SCORING:	Relatively easy
STANDARDIZATION:	Not reported
RELIABILITY:	Not reported
VALIDITY:	Not reported

DEVELOPMENTAL KEY FOR ASSESSING CHILDREN'S GROWTH, 1974

PUBLISHER:	Frank Porter Graham Child Developmental Center University of North Carolina Chapel Hill, North Carolina 27514
PURPOSE:	To assess a child's growth on a listing of behaviors and stages of development
TIME:	10-15 minutes
AGE RANGE:	Preschool to first grade
AREAS OR SUBTESTS:	Social skills, attending skills, language development, emotional development, physical skills and conceptual skills
ITEM DESCRIPTION:	Information gained from the Developmental Key is partly from long-term observation and partly from specific tasks.
SCORING:	Relatively easy
STANDARDIZATION:	Not reported
RELIABILITY:	Not reported
VALIDITY:	Not reported

DEVELOPMENTAL PROFILE, 1972

PUBLISHER:	Psychological Development Publications 7150 Lakeside Drive Indianapolis, IN 46278
PURPOSE:	To estimate a child's developmental level in 5 skill areas
TIME:	30-40 minutes
AGE RANGE:	6 months to 12 years of age
AREAS OR SUBTEST:	Physical, self-help, social, academic and communication skills
SCORING:	Relatively easy; by parent interview
STANDARDIZATION:	3,008 children ages 6 months to 12 years old. Age norms are established on 6-month intervals for ages 6 months to 3.5 years. After age 3.5 the age norms are set at 1 year intervals.
RELIABILITY:	Said to be very high, though a coefficient is not reported.
VALIDITY:	Construct validity is reported as .87.

LEXINGTON DEVELOPMENTAL SCALE, 1975

PUBLISHER:	United Cerebral Palsy of the Bluegrass Child Development Center P.O. Box 8003 465 Springhill Drive Lexington, Kentucky 40503
PURPOSE:	To assess a child's status; designed for use with any child exhibiting slowness in development
TIME:	30 to 45 minutes
AGE RANGE:	Birth through 6 years
AREAS OR SUBTESTS:	Motor, language, cognitive, personal and social and emotional
SCORING:	Relatively easy; expressed by developmental age
STANDARDIZATION:	33 preschool children
RELIABILITY:	Spearman-Brown: motor .99; language .99; per- sonal and social .94; cognitive .99; and emotional .99.
VALIDITY:	Not established

THE McCARTHY SCREENING TEST (MST)

PUBLISHER: The Psychological Corporation
757 Third Avenue
New York, New York 10017

AUTHOR: D. McCarthy

PURPOSE: To identify children who are likely to encounter difficulties in coping with school

TIME: 20 minutes

AGE RANGE: 4-6.5 years of age

AREAS OR SUBTESTS: Language and concepts, visual perception, auditory memory, fine and gross motor coordination and orientation in space

SCORING: Relatively easy

STANDARDIZATION: The MST gets its normative information from the McCarthy Scales of Children's Abilities. These norms come from a nationwide sample of normal children. The sample was stratified on the basis of age, sex, color, geographic region and father's occupation.

RELIABILITY: Test-retest reliability ranges from .32 - .69

MEMPHIS COMPREHENSIVE DEVELOPMENTAL SCALE, 1973

PUBLISHER: Lear Siegler/Fearon Publishers
6 Davis Drive
Belmont, California 94002

PURPOSE: To gather information about a child's developmental levels

AGE RANGE: 3 months to 5 years

AREAS OR SUBTESTS: Personal-social, gross motor, fine motor, language and perceptual-cognitive attainment.

SCORING: Relatively easy;

STANDARDIZATION: Not reported

VALIDITY: Not reported

RELIABILITY: Not reported

PRESCHOOL ATTAINMENT RECORD, 1966

PUBLISHER: American Guidance Services, Inc.
Publishers' Building
Circle Pines, Minnesota 55014

AUTHOR: E. A. Doll

PURPOSE: To measure physical, social, mental and language skills

TIME: 20 to 30 minutes

AGE RANGE: 6 months to 7 years of age

AREAS OR SUBTESTS: Physical, social, mental and language attainment

SCORING: Relatively easy; by parent interview

RELIABILITY: Not reported

VALIDITY: Not reported

PRESCHOOL SCREENING SYSTEM, 1974

PUBLISHER:	P. Hainsworth and R. Hainsworth Box 163 Pawtucket, Rhode Island 02862
PURPOSE:	To provide a quick method for surveying the learning skills of preschool children
TIME:	15-20 minutes
AGE RANGE:	3-6 years of age
AREAS OR SUBTESTS:	Physical motor, perceptual, cognitive, speech and language skills
ITEM DESCRIPTION:	The parent is asked to fill out a questionnaire which requests information about the behavior, medical and developmental history of their child.
STANDARDIZATION:	Not reported
RELIABILITY:	Not reported
VALIDITY:	Not reported

RAPID DEVELOPMENT SCREENING CHECKLIST, 1972

PUBLISHER:	Committee on Children with Handicaps, American Academy of Pediatrics, New York Chapter 3, District II The Mental Retardation Institute New York Medical College Valhalla, New York 10595
AUTHOR:	M.J. Giannini, E. Chasid, et al.
PURPOSE:	To determine a child's developmental strengths and weaknesses
TIME:	2 to 3 minutes
AGE RANGE:	1 month to 5 years
SCORING:	Relatively easy
STANDARDIZATION:	1,542 children
VALIDITY:	79% of children with 3 or more "no" responses were considered as having likely developmental lags.

REVISED DENVER DEVELOPMENTAL SCREENING TEST (DDST-R) 1978

PUBLISHER:	Lacoda Project and Publishing Foundation East 51st Street and Lincoln Street Denver, Colorado 80214
AUTHOR:	W. F. Frankenburg and L. B. Dodds
PURPOSE:	To detect children who have developmental delays.
TIME:	5 to 7 minutes
AGE RANGE:	6 weeks to 6.4 years of age
AREAS OR SUBTESTS:	Personal-social, fine motor-adaptive, language and gross motor skills.
ITEM DESCRIPTION:	The DDST-R consists of the same 105 developmental items that are in the Denver Developmental Screening Test (DDST).
SCORING:	Relatively easy. Items are scored only as passed. If child misses any items the full DDST should be given.
STANDARDIZATION:	The DDST-R gets its normative information from the DDST.
RELIABILITY:	.98 correlation between DDST and DDST-R.
VALIDITY	The DDST-R gets its information on validity from the DDST.

THE REVISED DEVELOPMENTAL SCREENING INTERVIEW, 1980

PUBLISHER:	Department of Pediatrics Albany Medical College Albany, NY 12208
AUTHOR:	H. Knobloch, F. Stevens and A.F. Malone
PURPOSE:	To determine if a child is functioning at age level or if any abnormalities which require further assessment exist.
TIME:	15-30 minutes
AGE RANGE:	1 to 26 months
AREAS OR SUBTESTS:	Gross motor, fine motor, adaptive, language, and personal-social skills
ITEM DESCRIPTION:	Items are based on the Revised Gesell and Amatruda Developmental Scales.
SCORING:	Relatively easy; children determined to be developmentally normal, questionable or abnormal.
STANDARDIZATION:	526 infants
RELIABILITY:	Underscreening of those with major abnormalities was reported as 2.6% and overscreening was reported as 6%

RILEY PRESCHOOL DEVELOPMENTAL SCREENING INVENTORY, 1969

PUBLISHER: Western Psychological Services
Box 775
Beverly Hills, CA 90213

AUTHOR: C.M.D. Riley

PURPOSE: To identify children who may have serious problems
and need professional help

TIME: 3-10 minutes

AGE RANGE: 3-6 years of age

AREAS OR SUBTESTS: Visual perception, motor, school readiness and self-
concept

SCORING: Relatively easy

STANDARDIZATION: 600 low income children from Los Angeles County

RELIABILITY: Not reported

VALIDITY: Not reported

SLOSSON INTELLIGENCE TEST, 1961

PUBLISHER: Slosson Educational Publications
740 Pine Street
East Aurora, New York 14052

AUTHOR: R.L. Slosson

PURPOSE: To provide screening information

TIME: 10-20 minutes

AGE RANGE: 1 month to adulthood

AREAS OR SUBTESTS: Language, fine motor, gross motor, reasoning

ITEM DESCRIPTION: There is a heavy emphasis on language throughout. All but items for the very young are given orally.

SCORING: Relatively easy

STANDARDIZATION: Children and adults from rural and urban areas of New York State. The age, sex, socioeconomic and ethnic background of the sample is not reported.

RELIABILITY: A .97 test-retest reliability is reported for 139 individuals, 4 to 50 years

VALIDITY: Correlates with Stanford-Binet, form L-M.

VINELAND SOCIAL MATURITY SCALE, 1965

PUBLISHER:	American Guidance Service, Inc. Publishers' Building Circle Pines, Minnesota 55014
AUTHOR:	E.A. Doll
PURPOSE:	To assess social competence
TIME:	20 to 30 minutes
AGE RANGE:	Birth to 30 years of age
AREAS OR SUBTESTS:	Self-help (general eating and dressing), self-direction, occupation, communication, locomotion and socialization
SCORING:	By parental interview
STANDARDIZATION:	620 white subjects from the Vineland, New Jersey area; 20 at each age level; normed in 1935.
RELIABILITY:	Test-retest with 1.35 years between test coefficients .99 to .94
VALIDITY:	Agreement between parents and educators is reported as .92

Auditory Screening

Deafness or hearing loss can occur at any time in a child's life and may be quite subtle. Many researchers have estimated that 1 in 1,000 children are profoundly deaf at birth. These reports only represent severe hearing loss, so the true incidence of hearing loss in infants and children will be significantly greater. It has been widely accepted that serious hearing losses adversely affect a child's school performance, but the effects of mild hearing losses, which often go unrecognized, are just as significant. Recurrent middle ear disease during the first three years of life and frequent ear infections can cause disturbances in auditory processing which may later interfere with the acquisition of basic skills. Detection of such conditions may warrant the need for further auditory examination and/or referral to an audiologist or an otolaryngologist.

As a physician, you may be the first to suspect the possibility of a hearing loss in young patients. Your observation and assessment is often the initiating force behind the identification of hearing problems and can make it possible for hearing impaired and deaf children to receive language stimulation and be provided with technological assistance during the critical period of language development.

Assessment of hearing should begin shortly after birth. Your first consideration may be the determination of the newborn's at-risk factors. The Joint Committee on Infant Hearing Screening has developed a set of at-risk factors to help identify the possible existence of hearing impairments. Downs and Silver (1972) further adapted these criteria and listed them in an easily remembered format:

- A Affected family - The history of hearing loss in a family member (other than onset in old age)
- B Bilirubin level greater than 20 mg/100 ml serum
- C Congenital rubella syndrome
- D Defects of the ear, nose, or throat; e.g., malformed, lowset or absent pinna, cleft palate
- S Small at birth or birthweight less than 1,500 grams (Downs and Silver, 1972)

Determining how an infant's profile relates to these criteria may indicate whether or not he is at-risk for having or developing a hearing impairment.

When examining an infant, it is important for the physician to observe how the child responds to sound. Any excessive reaction such as an unusually marked Moro response may be significant. It is important to examine for deformity, asymmetry, unusually low placement, peculiar slant, cosmetically significant protrusion, skin tags or other abnormalities. The area immediately in front of the ear should be particularly examined for the presence of a dermal sinus.

There are other indicators and risk factors which are important to consider in determining the need for further evaluation within the first 24 months of life. Downs and Silver (1972) developed the following:

H.E.A.R.

- H. Hearing Concern? Have the child's parents observed any behaviors which cause them to suspect a hearing loss?
- E. Ear Test normal? Does infant respond normally to a simple orientation test using squeeze toys, bells, or rattle on either side of head?
- A. Awaken readily to sound? Does child respond to sound by stirring or waking when sleeping in a quiet room?
- R. Responses and performance on development and communication scales? Are child's language skills at the expected age level?

A child who is performing significantly below expected developmental norms in language development or who has recurrent middle ear disease may also warrant further assessment. The following is a brief listing of some major milestones which can be used as general guidelines:

- Responds to verbal response 9 months
- Pays attention to speaker's face 10 months
- Says 5-6 words, copies melodic patterns 12 months
- Has a vocabulary of 50-75 words, 1.5 words in sentences, repeats words, sequences easily 18-24 months
- Asks simple questions, 1.8 words in sentences, listens to stories, names, describes objects 24-30 months
- 3.1 words in sentences, recites 1-2 nursery rhymes, uses 2-3 prepositions, 400 words in vocabulary 30-36 months
- 800 words, experiments with many syntactic forms, fairly intelligible speech 3.0 years
- 98% of speech is intelligible, sentence structure advances rapidly, 6-8 words in sentence 4.0 years

(Berry, 1969)

There are many other signs which may suggest hearing loss or deafness in the preschool child. Gesell has listed and categorized some other indicators.

1. Hearing and Comprehension of Speech
 - General indifference to sound.
 - Lack of response to spoken word.
 - Response to noises as opposed to voice.
2. Vocalizations and Sound Production
 - Monotonal quality.
 - Indistinct.
 - Lessened laughter.
 - Meager experimental sound play and squealing.
 - Vocal play for vibratory sensations.
 - Head-banging, foot stamping for vibratory sensation.
 - Yelling, screeching to express pleasure, annoyance or need.

3. Visual Attention and Reciprocal Comprehension
 - Augmental visual vigilance and attentiveness.
 - Alertness to gesture and movement.
 - Marked imitateness in play.
 - Vehemence of gestures.
4. Social Rapport and Adaptions
 - Subnormal rapport in vocal nursery games.
 - Intensified preoccupation with things rather than persons.
 - Inquiring, sometimes confused or thwarted, expression.
 - Puzzled and unhappy episodes in social situations.
 - Suspicious alertness, alternating with cooperation.
 - Markedly reactive to praise and affection.
5. Emotional Behavior
 - Tantrums to call attention to self or need.
 - Tensions, tantrums, resistances due to lack of comprehension.
 - Frequent obstinacies, teasing tendencies.
 - Irritability at not making self understood.
 - Explosions due to self-vexation.
 - Impulsive and avalanche initiatives.

(Haynes, 1977, p.30)

There are three common procedures used in screening young children for hearing problems. These include pure tone testing, which measures hearing function, impedance screening, which tests ear function, and otoscope examination, which may diagnose ear disease.

Pure tone testing is the traditional hearing screening method in use today. It involves having the child respond to selected frequencies at various loudness levels. In most instances, if the child's hearing is between 0-25 decibels, hearing is considered normal.

Impedance screening tests the performance of the middle ear. It can help identify problems that are causing mild hearing losses which are frequently missed during acuity tests. Impedance screening assesses pressure in the eustachian tube to determine whether there is any blockage. It also measures the flexibility or compliance of the eardrum. The less flexible the eardrum is, the less sound it conducts. Eustachian tube dysfunctions, which might be identified through impedance screening, include upper respiratory illness, ear infection or perforation of the eardrum.

Otoscope or physical examination may reveal physiological problems. Any condition that causes obstruction in the ear canal or the middle ear cavity that interferes with sound transmission will cause a conductive hearing loss. This accounts for ninety percent of hearing losses among infants and preschool children. The most common causes are foreign bodies in the external ear canal, external ear canal infection, problems associated with tympanic membrane mobility, and congenital anomalies. Ninety-five percent of all conductive type hearing losses can be ameliorated with medical or surgical treatment. Damage to either the hair cells or the eighth nerve will cause a sensorineural hearing loss. Common causes are viral and bacterial infections, ototoxic drugs, excessive noise exposure, congenital anomalies and head trauma.

Comprehensive and aggressive follow-up should continue throughout childhood especially for those children who have been determined to be at-risk or handicapped, who exhibit language delays or who have recurrent middle ear disease. Any suspicion of hearing impairment based upon screening and physical examination warrants referral to an otolaryngologist or an audiologist for further testing. A comprehensive speech and language assessment is an additional referral option which may warrant consideration.

Visual Screening

It has been estimated that visual defects occur in about 20% of the population and that educationally significant noncorrectable vision impairments are found in about one student in 1,000 (Reynolds and Birch, 1982). There are a variety of informal measures which may be employed during routine checkups to screen for visual impairments.

Following objects in space is the first sign that vision is present. Infants should be carefully observed to determine the need for further testing. "Greatly disconjugate or ceaselessly roving eye motions suggest blindness. While the infants may exhibit problems of convergence (which usually begins at about 3 months), a constant and fixed strabismus warrants careful medical appraisal at any age" (Hayes, 1977, p. 27, 28). Other factors to be checked include the "setting sun" sign, the size of the cornea, the presence of cataracts, and the blink reflex (Haynes, 1977).

You should also examine the intraocular structures. This includes an examination of the cornea, the interior and posterior chambers, the iris and pupillary responses. Light is used to examine the cornea for opacities. Corneal size should be measured to the outer borders of the visible iris and is 10 millimeters in diameter at birth enlarging to the adult size of 12 millimeters during the second six months of life. The anterior chamber will be shallow in infants. However, if you should detect blood in this space, it is a hypema and indicates serious ocular injury. An infant's iris will appear flat and be without the normal stromal clefts. You may find it difficult to examine pupillary responses in an infant, particularly one with dark irides, because the pupils are so small. The dilator fibers of the iris will not be fully formed until 3 or 4 years of age. You can examine the posterior chamber of the eye with an ophthalmoscope. The red reflex should be observable in the infant.

There are some intraocular conditions which necessitate immediate referrals to an ophthalmologist. These include:

- leucocoria or white pupils suggesting retinoblastoma,
- monocular cataracts suggesting intraocular disease,
- bilateral congenital cataracts,
- strabismus,
- aniridia,
- coloboma, and
- nystagmus

Amblyopia and strabismus are other conditions which should be screened for because, if left untreated, a child's development may be impaired. Amblyopia is a reduction of vision resulting from prolonged suppression of the retinal image. An eye may appear to be developing normally but if the fixation reflexes are not stimulated equally, a child is at risk of developing poor vision in the eye without ophthalmoscopic abnormalities. This condition is often reversible with optical correction and/or patching before age six (Barker and Barmatz, 1979).

The three basic tests for determining visual acuity and the presence of amblyopia are the Illiterate "E" Test, the Picture Test, and the Fixation Test.

Illiterate "E" Test

- Given to children 3 years and older.
- Generally thought to be the most accurate of the three tests.

Picture Card Test

- Given to children under three years of age.
- Requires verbal response.

Fixation Test

- Given to children ages 3 months to 2 years of age.
- Does not require verbalization or comprehension of verbal instruction. This test is used for children who are unable to perform on either the Illiterate "E" or the Picture Card Test.

Strabismus or ocular muscle imbalance is known to effect between 1 and 4 percent of children (Duke-Elder, 1973; Foote, F.M., 1954; Hatfield, E.M. and Barrett, C.D. and Nudell, R.J., 1967). If the child's eyes appear straight, but the parent describes intermittent exotropia, the child should be reevaluated. You should keep in mind that the optimal ages to screen for strabismus are before two years and again at four or five years. The latter screening is crucial, for the highest prevalence of the condition is noted after this age (Barker and Barmatz, 1979).

The screening tests used to detect strabismus are the pupillary light reflex test, the cover test, and the cover-uncover test.

Pupillary light reflex test (Hirschberg Test)

- Generally given to children 3 to 6 years of age, but also useful for some infants and uncooperative children.
- Requires child to fixate upon a penlight held about 13 inches away.
- The cornea of each eye is observed for the reflection of the light. The cornea light reflex should be in the center of each pupil, but may be slightly towards the nasal side of the pupil.
- Strabismus is present if there is a deviated reflex in one eye.
- May miss small errors.

Cover Test

- Tests for the presence of heterotropia or a manifest squint; a deviation under binocular conditions.
- Given to any age level, though patient must be able to fixate on an object. This is usually achieved by 3 to 6 months of age.
- Detects deviation under binocular viewing conditions.
- Begins with both eyes viewing an appropriate target, usually a small light.
- An occluder is placed over one eye, disrupting fusion.
- The uncovered eye is observed for any shift in position. A shift in either direction by the uncovered eye indicates that it is not fixating under binocular viewing and that viewing was required in order to attain fixation. Such a shift is indicative of a heterotropia.
- This procedure is repeated with the other eye.

Cover-Uncover Test

- Tests for the presence of heterophoria or latent deviation; a deviation under monocular conditions.
- A variation of the cover test.
- Given to any age level, though child must be able to fixate on an object.
- Begins with both eyes fixating on a target.
- An occluder is placed over one eye.
- As the cover is removed, the uncovered eye is observed. Heterophoria is present if the eye moves to restore binocular vision.

(Hatfield, 1975)

The total eye test is considered abnormal if the child scores in the abnormal range on any of the above tests for visual acuity, if the child squints with either eye during the test or if either the pupillary light reflex or cover tests are abnormal. The child is considered untestable if the examiner cannot test his visual acuity and cannot be sure that the child's eyes were straight. If this occurs, screening should be conducted again in a few weeks.

There are a number of vision screening measures which may be used to detect amblyopia, strabismus and other diseases. A sampling of these are listed below.

TEST	AGE RANGE	AMBLYOPIA	STRABISMUS	OTHER DISEASES
Vision Tests				
1. Optokinetic Response	Any age	X		X
2. Fixation Test	2 months and above	X		X
3. STYCAR	6 months - 7 years	X		X
4. Allen Picture Cards	2½ years and above	X		X
5. Sjogren Hand Test	3 years and above	X		X
6. Illiterate E	3 years and above	X		X
7. Landolt Rings	6 years and above	X		X
8. Snellen Letters	6 years and above	X		X
9. White Vision Chart	3 years and above	X		X
Muscle Balance Tests				
1. Cover Test	Any age	X	X	
2. Hirschberg	Any age		X	
Combination of Vision and Muscle/Machines				
1. Atlantic City Vision Screener	3 years and above	X	X	X
2. Screening Insta-Line	3 years and above	X	X	X
3. Bausch & Lomb (B & L) Vision Tester	6 years and above	X	X	X
4. Keystone Telebinocular	6 years and above	X	X	X
5. Titmus Screener	6 years and above	X	X	X

(Frankenburg and Camp, 1975, p. 299)

Vision impairment can hinder a child's normal growth and development and likelihood of success in school. If detected early, treatment can be implemented before a child is of age to enter kindergarten. By conducting routine visual screenings you can ensure that such problems are identified and treated as early as possible. Should the results of your screening procedures lead you to suspect amblyopia, strabismus or other eye diseases, the child should be referred to an ophthalmologist for further evaluation, diagnosis and treatment.

REFERRAL AND SERVICES

The previous sections of this guide have dealt with the rationale for early intervention and the types of screening methods you, as the physician, may wish to use to determine if a handicapping condition exists. If screening results indicate a need for further testing, you can pursue various courses of action to ensure that a child receives a comprehensive evaluation and is appropriately matched to services. A direct referral might be made to a local preschool program, a diagnostic center or a referral agency. It is important to note that there are no absolutes in referring children to services. Referrals will vary based upon the child's individual needs and the availability of services.

Within your community, early intervention may be provided in a number of ways. Some handicapped preschoolers may attend nursery school or day care programs which are designed primarily for nonhandicapped children. Habilitative services such as occupational, physical and speech therapies may be provided by a local clinic or special education facility or as an integral part of a special education program. In some localities, home-based programs are available to provide special education services to handicapped children and parents in their homes. Children who attend special education programs need a self-contained classroom setting which offers related or habilitative services. Handicapped preschoolers who need intensive 24-hour instructional, habilitative, and/or medical services may be referred to a residential program. You may wish to become familiar with the types of program and service options that are available in your region.

In New York State, there are a variety of special education options available for handicapped preschool children and their families. Local school districts may provide programming for handicapped children below five years of age, but are not mandated to do so. This manual describes programs and resources available through the New York State Education Department. Additional special education programs, evaluation and habilitation services are available through other State services, private agencies and medical institutions at the local level.

Early Childhood Direction Centers

The New York State Education Department supports a network of 13 Early Childhood Direction Center projects (see Appendix C). These centers, located in local education agencies, private agencies and hospitals, are designed to assist parents and professionals in matching the individual needs of young handicapped children to services within their region. You can contact the Direction Center for assistance in linking handicapped children, birth to five, to services.

Your local Direction Center maintains up-to-date information on all available programs and services. Staff actively assist in all phases of arranging for programming for the child. Once an initial match to services has been made, systematic follow-up is conducted to ensure that existing services are responsive to the changing needs of the child and family. Follow-up continues until the child reaches age five and is eligible to attend school. The Direction Center also reports children identified as handicapped to local Committees on the Handicapped (COH) to assist school districts in keeping accurate census records and planning for programs.

Early Childhood Direction Centers also work cooperatively with Regional Perinatal Centers. When a child is identified by the Perinatal Center as handicapped and in need of special education services, coordination takes place to ensure that parents are referred to the Direction Center so services can be arranged. This is crucial in making sure handicapped infants begin to receive services as soon as the problem is identified. Follow-up occurs until the child reaches five years of age.

Committees on the Handicapped

Each school district is required by law to have a Committee on the Handicapped (COH). The membership of the Committee must include the following people: a school psychologist, a teacher or administrator of special education, a physician and a parent of a handicapped child who lives in the district. The main function of this Committee is to work with parents and professionals in developing recommendations to the Board of Education regarding the classification, evaluation and educational programs of each handicapped child aged 5-21. Since the COH is so closely involved with educational programs for school-age handicapped children, it can be a valuable source of information for physicians, other professionals, and parents of preschool handicapped children. You may wish to contact the physician member of your local district's COH to obtain additional information about the Committee.

The COH also maintains an accurate and up-to-date register of all handicapped children in its district who are entitled to attend public school during the next school year. This means that districts are required to identify all children who are known or thought to be handicapped beginning at age four. Committees on the Handicapped are encouraged, however, to be aware of all handicapped children below the age of five in their district, so that they can make plans for programming when these children reach school age. Acting as a multidisciplinary team, many COHs review program placements for handicapped children below age five, from their district.

Family Court Petitioning

Some special education programs providing special education services to preschool children receive funding when parents petition for the costs of these services through Family Court. In accordance with Section 236 of the Family Court Act and Section 4406 of the Education Law, parents of handicapped children below the age of five may petition the Family Court in their county of residence for the costs of tuition, transportation and maintenance for special education programs for the school year and summer months. Children handicapped because of mental, physical or emotional reasons as defined in Part 200 of the Commissioner's Regulations are eligible for this type of funding. (See Appendix A.) Upon receipt of the petition, the Family Court judge may issue an order to approve costs which are then charged to the county. If the Commissioner of Education approves the order for the Family Court, based upon an individual review of the child's program and if the child's program meets certain minimum requirements, the State Education Department will reimburse the county for up to 50 percent of the amount ordered by the Court. Many Family Courts wait for a recommendation from the State Education Department before making a decision about petitions.

Many programs provide direct assistance to parents in completing the petitioning process. Direction Centers are also available to help parents and professionals petition for programming costs. This process is the major funding source for special education programs for handicapped children below five years of age in New York State.

Deaf Infant Programs

Children below the age of three who are deaf are eligible to receive educational services in accordance with Section 4204-a of the Education Law. These programs are designed to help children learn to communicate and to provide parents with training that will assist them in understanding and communicating with their child. Deaf infant facilities are approved on an annual basis.

Infants below three years of age, who are unable to respond to sounds presented at intensities of 60 decibels (db) sound pressure level (SPL) are eligible for services. Your auditory screening and assessment may help determine a child's eligibility for this program. Such children can be referred to the Early Childhood Direction Center in your locality or directly to the State Education Department.

In order to apply for services for a deaf infant, parents or legal guardians must file an application for tuition assistance with the State Education Department. Forms can be obtained by contacting the Direction Center, the local school district or the State Education Department. The form must be signed by the parents and includes an otological and audiological evaluation summary completed by a physician and audiologist, who must also sign the form. If the infant is found to be eligible, a referral will be made by the Commissioner of Education to the approved facility nearest to the child's residence and the parents and agency will be notified. Infants and their parents can then begin receiving services.

State-operated and State-supported schools

State-operated and State-supported schools provide services to blind, deaf and severely physically handicapped children beginning at age three. Day programs are available to eligible students, although some facilities may offer a residential program. If available, residential appointments will be considered only when travel arrangements preclude attendance on a day basis, or where the student's educational needs warrant a residential setting.

Parents must initiate an application to the Commissioner of Education supported by adequate written evidence of the child's blind, deaf, or severely physically handicapping condition. After review of the application, the Commissioner will direct the parents to make arrangements for an evaluation at one of the State-operated or State-supported schools. The school will evaluate the child's eligibility for its program and notify the parents and the Commissioner of the results of the evaluation and recommend appointment, if appropriate.

Head Start

Head Start is a Federal project which provides a comprehensive child development program for income eligible preschool children between ages three and five and their families. Local agencies apply directly to the Federal government to receive Head Start grants. Services offered to each child include educational programs, a parent program and social services. Health services, including medical, dental, nutritional and mental health care are also provided.

The Head Start program has developed a national network of Resource Access Projects (RAP) which assist local Head Start professionals in the implementation of services to handicapped children. RAP staff provide training and technical assistance in New York State and work with schools and other agencies in facilitating the transition of handicapped children from Head Start to local district programs. They also collaborate with the State Education Department and other agencies in developing plans for serving preschool handicapped children to ensure maximization of limited resources.

Special Education Training and Resource Centers

A major effort to involve parents in the education of their young handicapped children has been undertaken by the State Education Department through the training activities of the Special Education Training and Resource Center (SETRC) network. The Office for Education of Children with Handicapping Conditions administers and supports this network of 46 training centers. These centers are located throughout the state, in BOCES, in large city school districts and in one university. The SETRC network conducts training programs for educational administrators, regular and special education teachers and parents of preschool and school-age handicapped children. The intent of the training objectives for preschool parents and professionals is to help them understand the special needs of the young handicapped child, to increase their skills in parenting or teaching and to encourage cooperation of parents and teachers in meeting the child's individual needs both in school and at home. Training centers also provide information and resources to parents and concerned professionals. Refer to Appendix D for the address and telephone number of each training center.

CONCLUDING STATEMENTS

It is hoped that this guide has provided information that will help you actively participate in the identification and referral of young handicapped children. As a physician, you play a key role in a child's early growth and development. Most parents will consult you for assurance that their child is developing normally and you may be the first to suspect that a child has a handicapping condition. Your role in the identification and referral process will facilitate and accelerate the delivery of early intervention programs and services to handicapped infants, preschoolers and their families. By incorporating screening into your medical practice, by increasing your awareness of local service options and by coordinating referral efforts with other agencies, you can ensure that young handicapped children will receive the benefits of early intervention.

Additional information on available services for handicapped infants and preschoolers in New York State is provided in the accompanying manual, "Special Education for Handicapped Children, Birth to Five." The following is a list of other publications available through the Office for Education of Children with Handicapping Conditions:

Alternative Testing Techniques for Children with Handicapping Conditions, 1982 edition

A manual which provides information on the appropriate use of such techniques during statewide testing programs.

A Handbook for Committees on the Handicapped in New York State, revised 1981

This manual is written for members of the Committee on the Handicapped. It explains the legal responsibilities of the Committee and presents recommended guidelines for carrying out these responsibilities.

The Individualized Education Program, A Guide for Development, 1981

A working reference and guideline for those directly involved in the process of development, implementation and review of individualized education programs for children with handicapping conditions.

Making School Programs Accessible to the Handicapped, 1981

A guide for school officials seeking to achieve physical, programmatic and attitudinal accessibility.

News Briefs

Published monthly, the Office for Education of Children with Handicapping Conditions newsletter contains information about changes in State and Federal legislation and policy which affects the services provided for pupils who require special education.

Physical and Occupational Therapy in an Educational Setting, 1981

A manual outlining the types of services which may be provided by physical and occupational therapists.

Placement and Education of Children with Handicapping Conditions in Private, State-Operated and State-Supported Schools, 1982

A manual describing the processes for placement and the role and responsibilities of local school districts, parents, private schools and a variety of public agencies in the education of children with handicapping conditions.

Questions and Answers About Serving the Educationally Handicapped in New York State

A series which answers the most commonly asked questions on Article 89, Part 200 and Chapter 563 of the Laws of 1980.

The Role of a School Board Member in the Education of Children with Handicapping Conditions, revised 1981

A handbook describing the board member's responsibilities for providing quality educational programs for children with handicapping conditions.

Screening in New York State, revised 1982

A manual providing an outline of requirements for screening and suggestions for implementation including law and regulations.

Services for the Handicapped: Linking Special Education, Occupational Education and Vocational Education, 1979

A summary of the major problems, issues and recommendations for combined action as determined by seven 1979 regional conferences.

Serving Neglected and Delinquent Children in New York State, 1981

A manual which discusses a variety of services available to the neglected and delinquent population under Title I.

Your Child's Right to an Education: A Guide for Parents of Children with Handicapping Conditions in New York State, revised 1981

This manual is written for parents of children who require special education. It explains the financial and educational responsibilities of the State and local educational agencies to these children.

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APPENDIX A

The University of the State of New York

THE STATE EDUCATION DEPARTMENT

Office for Education of Children with Handicapping Conditions

Albany, New York 12234

REGULATIONS OF THE COMMISSIONER OF EDUCATION SUBCHAPTER P

Pursuant to Sections 207 and 4403 of the Education Law

PART 200 — HANDICAPPED CHILDREN

Effective July 1, 1982

200.1 Definitions. As used in this Part:

(cc) Pupil with a handicapping condition means a person who has not attained the age of 21 prior to September first and who is entitled to attend public schools pursuant to section 3202 of the Education Law and who, because of mental, physical or emotional reasons, has been identified as having a handicapping condition and can receive appropriate educational opportunities from special services and programs approved by the department. This term includes the following classifications:

- (1) Autistic. A pupil who manifests a behaviorally defined syndrome which occurs in children of all levels of intelligence. The essential features are typically manifested prior to 30 months of age and include severe disturbances of developmental rates and/or sequences of responses to sensory stimuli, of speech, of language, of cognitive capacities, and of the ability to relate to people, events, and objects.
- (2) Emotionally disturbed. A pupil with an inability to learn which cannot be explained by intellectual, sensory or health factors and who exhibits one or more of the following characteristics over a long period of time and to a marked degree:
 - (i) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
 - (ii) inappropriate types of behavior or feelings under normal circumstances;
 - (iii) a generally pervasive mood of unhappiness or depression; or
 - (iv) a tendency to develop physical symptoms or fears associated with personal or school problems.

The term does not include socially maladjusted pupils unless it is determined that they are emotionally disturbed.

- (3) **Learning disabled.** A pupil with a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which manifests itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, neurological impairment, minimal brain dysfunction, dyslexia and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing or motor handicaps, of mental retardation, of emotional disturbance, or of environmental, cultural or economic disadvantage. A child who exhibits a discrepancy of 50 percent or more between expected achievement and actual achievement determined on an individual basis shall be deemed to have a learning disability.
- (4) **Mentally retarded.** A pupil who, concurrent with deficits in adaptive behavior, consistently demonstrates general intellectual functioning that is determined to be 1.5 standard deviations or more below the mean of the general population on the basis of a comprehensive evaluation which includes an individual psychological evaluation.
- (5) **Deaf.** A pupil with a hearing impairment which is so severe that the pupil is impaired in processing linguistic information through hearing, with or without amplification, which adversely affects educational performance.
- (6) **Hard of hearing.** A pupil with a hearing impairment, whether permanent or fluctuating, which adversely affects the child's educational performance but which is not included under the definition of deaf in this section.
- (7) **Speech-impaired.** A pupil with a communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, which adversely affects a child's educational performance.
- (8) **Visually impaired.** A pupil with a visual handicap which, even with correction, adversely affects a child's educational performance. The term includes both partially seeing and blind children.
- (9) **Orthopedically impaired.** A pupil who is physically handicapped and who has a severe orthopedic impairment, which adversely affects a child's educational performance. The term includes impairments caused by congenital anomaly (e.g., clubfoot, absence of some member, etc.), impairments caused by disease (e.g., poliomyelitis, bone tuberculosis, etc.), and impairments from other causes (e.g., cerebral palsy, amputation, and fractures or burns which cause contractures).
- (10) **Other health-impaired.** A pupil who is physically handicapped and who has limited strength, vitality or alertness due to chronic or acute health problems, including but not limited to a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, diabetes or tourette syndrome, which adversely affect a pupil's educational performance.
- (11) **Multiply handicapped.** A pupil with two or more handicapping conditions that result in multisensory or motor deficiencies and developmental lags in the cognitive, affective, or psychomotor areas, the combination of which cause educational problems that cannot be accommodated in a special education program solely for one of the impairments.

APPENDIX B

§ 1.03 — MENTAL HYGIENE LAW

22. "Developmental disability" means a disability of a person which:

(a)(1) is attributable to mental retardation, cerebral palsy, epilepsy, neurological impairment or autism;

(2) is attributable to any other condition of a person found to be closely related to mental retardation because such condition results in similar impairment of general intellectual functioning or adaptive behavior to that of mentally retarded persons or requires treatment and services similar to those required for such persons; or

(3) is attributable to dyslexia resulting from a disability described in subparagraph (1) or (2) of this paragraph;

(b) originates before such person attains age eighteen;

(c) has continued or can be expected to continue indefinitely; and

(d) constitutes a substantial handicap to such person's ability to function normally in society.

APPENDIX C

EARLY CHILDHOOD DIRECTION CENTERS

The Early Childhood Direction Centers, coordinated by the New York State Education Department, are resources for parents of preschool-age children with handicapping conditions. They provide information about special education programs and help parents obtain services for their children.

The following list is provided for you to identify the Early Childhood Direction Center in your area.

Early Childhood Direction Center
c/o Cantalician Learning Center
3233 Main Street
Buffalo, NY 14214
(716) 833-3127
1-800-462-7653

Regional Early Childhood
Direction Center
264 Village Landing
Fairport, NY 14450
or
University of Rochester
Strong Memorial Hospital
601 Elmwood Avenue
Rochester, NY 14642
1-800-462-4344 or
(716) 223-6220

Early Childhood Direction Center
Center of Human Policy
Division of Special Education
and Rehabilitation
Syracuse University
216 Ostrom Avenue
Syracuse, NY 13210
1-800-962-5488
(315) 423-4444, (315) 423-3851

Early Childhood Direction Center
of the Capital Region
Albany-Schenectady-Schoharie
BOCES
Maywood Elementary School
1979 Central Avenue
Albany, NY 12205
1-800-342-1216
or
(518) 456-9071

Early Childhood Direction Center
Franklin-Essex-Hamilton BOCES
Box 28
West Main Street Road
Malone, NY 12953
(518) 483-6523

Early Childhood Direction Center
Broome-Delaware-Tioga BOCES
81 Pennsylvania Avenue
Apalachin, NY 13732
(607) 748-8263 or 625-3534

Early Childhood Direction Center
79-83 East Chester Street
Kingston, NY 12401
(914) 338-6755

Early Childhood Direction Center
St. Agnes Hospital
305 North Street
White Plains, NY 10605
(914) 681-4656, 681-4657 or
681-4658

Early Childhood Direction Center
Pre-Schooler's Workshop
47 Humphrey Drive
Syosset, NY 11791
(516) 364-8580

Early Childhood Direction Center
United Cerebral Palsy of Queens
82-25 164th Street
Jamaica, NY 11432
(212) 380-3000 Ext. 265

Early Childhood Direction Center
Suffolk Child Development Center
Hollywood Drive
Smithtown, NY 11787
(516) 724-2402

or
(516) 724-1717

Early Childhood Direction Center
NICU Jewish Hospital
and Medical Center of Brooklyn
555 Prospect Place
Brooklyn, NY 11238
(212) 240-1894

Early Childhood Direction Center
New York Hospital
525 East 68th Street
New York, NY 10021
(212) 472-6535

Coordinating Office:

New York State Education Department
Office for Education of Children with
Handicapping Conditions
Division of Program Development
Albany, NY 12234
(518) 474-5804 or 8917



New York State Early Childhood Direction Center Network

13 Centers

APPENDIX D

SPECIAL EDUCATION TRAINING AND RESOURCE CENTERS (SETRC)

The Office for Education of Children with Handicapping Conditions administers and supports a network of forty-six State Training Centers. These centers, called Special Education Training and Resource Centers, are located throughout New York State in BOCES, in large city school districts and at one university. They are local contact points for the dissemination of publications and information about training and services available to parents and personnel involved in the education of the handicapped.

The following list is provided for you to identify the Special Education Training and Resource Center in your area.

Albany-Schenectady-Schoharie BOCES SETRC

Maywood School
1979 Central Avenue
Albany, New York 12205
(518) 456-9069

Allegany BOCES SETRC

Allegany Educational Center
Angelica Road, R.D. #1
Belmont, New York 14813
(716) 268-5681 Ext. 224

Broome-Delaware-Tioga BOCES SETRC

Upper Glenwood Road
Binghamton, New York 13905
(607) 729-9301 Ext. 362

Buffalo City SETRC

School #75
99 Monroe Street
Buffalo, New York 14206
(716) 856-5595

Cattaraugus-Erie-Wyoming BOCES SETRC

Windfall Road
Box 424-B
Olean, New York 14760
(716) 372-8293

Cayuga County BOCES SETRC

234 South Street Road
Auburn, New York 13021
(315) 253-0361 Ext. 49

Chautauqua County BOCES SETRC

9520 Fredonia Stockton Road
Fredonia, New York 14063
(716) 672-4371 Ext. 278

Clinton-Essex-Warren-Washington BOCES SETRC

Box 455
Plattsburgh, New York 12901
(518) 561-0100

Cortland-Madison BOCES SETRC

McEvoy Education Center
Clinton Avenue Extension
Cortland, New York 13045
(607) 753-9301

Delaware-Chenango SETRC

S.U.N.Y. At Binghamton
Division of Professional Education
Vestal Parkway
Binghamton, New York 13901
(607) 798-6681

Dutchess BOCES SETRC

R.D. #1 Salt Point Turnpike
Box 369
Poughkeepsie, New York 12601
(914) 471-9200 Ext. 42

Erie #1 BOCES SETRC

2 Pleasant Avenue West
Lancaster, NY 14086
(716) 686-2019 or 2082

Erie #2 BOCES SETRC

4071 Hardt Road
Eden, NY 14057
(716) 992-3413

Franklin-Essex-Hamilton BOCES SETRC

Box 28-Special Education Office
Malone, New York 12953
(518) 483-1294

Genesee-Wyoming BOCES SETRC

8250 State Street Road
Batavia, New York 14020
(716) 343-1400 Ext. 294

Greene #2-Delaware-Schoharie-Otsego BOCES SETRC

Rexmere Park
Stamford, New York 12167
(607) 652-7531 Ext. 29

Hamilton-Fulton-Montgomery BOCES SETRC

Fulton-Montgomery Community College
Route 67
Room L210
Johnstown, New York 12095
(518) 762-7754

Herkimer-Fulton-Hamilton-Otsego BOCES SETRC

Gros Blvd.
Herkimer, New York 13350
(315) 867-2082

Jefferson-Lewis-Hamilton-Herkimer-Oneida BOCES SETRC

Outer Arsenal Street
Watertown, New York 13601
(315) 788-0400

Livingston-Stauben-Wyoming BOCES SETRC

Holcomb Building
Geneseo, New York 14454
(716) 243-5470

Madison-Oneida BOCES SETRC

Spring Road
Verona, New York 13478
(315) 363-8000

Monroe #1 BOCES SETRC

705 Plank Road
Penfield, New York 14526
(716) 671-8614

Monroe-Orleans #2 BOCES SETRC

3599 Big Ridge Road
Spencerport, New York 14559
(716) 352-2443

Nassau County BOCES SETRC

Rosemary Kennedy Center
2850 North Jerusalem Road
Wantagh, New York 11793
(516) 781-4044 Ext. 270-1-2

Oneida-Herkimer-Madison BOCES SETRC

Box 70-Middle Settlement Road
New Hartford, New York 13413
(315) 792-4605 or 792-4614

Onondaga-Madison BOCES SETRC

6820 Thompson Road
Syracuse, New York 13211
(315) 437-0248

Ontario-Seneca-Yates-Cayuga-Wayne BOCES SETRC

Finger Lakes Educational Center
3501 County Road 20
Stanley, New York 14561
(716) 526-6410

Orange-Ulster BOCES SETRC

Gibson Road
Goshen, New York 10924
(914) 294-5431 Ext. 276

Orleans-Niagara BOCES SETRC

3181 Saunders Settlement Road
Sanborn, New York 14132
(716) 731-4176

Oswego BOCES SETRC

County Route 64
Mexico, New York 13114
(315) 963-3094

Rensselaer-Columbia-Greene BOCES SETRC

Green Meadow School
1588 Schuurman Road
Castleton, New York 12033
(518) 477-8741

Rochester City SETRC

Central Administrative Offices
131 West Broad Street
Rochester, New York 14608
(716) 325-4560 Ext. 2710

Rockland BOCES SETRC

61 Parrott Road
West Nyack, New York 10994
(914) 623-3828 Ext. 266

St. Lawrence BOCES SETRC

Outer State Street
Canton, New York 13617
(315) 386-4504

Saratoga-Warren BOCES SETRC

Myers Education Center
Henning Road
Saratoga Springs, New York 12866
(518) 584-3239

Schuyler-Chemung-Tioga BOCES SETRC

431 Philo Road
Elmira, New York 14903
(607) 739-3581 Ext. 323

Steuben-Allegany BOCES SETRC

Wildwood Campus Bldg. #3
North Main Street Extension
Hornell, NY 14843
(607) 324-5893

Suffolk #2 BOCES SETRC

Greene Avenue School
100 Greene Avenue
Sayville, New York 11782
(516) 567-1121

Sullivan BOCES SETRC

Ferndale Loomis Road
Box 391
Liberty, New York 12754
(914) 292-7500

Syracuse City SETRC

Percy Hughes School
345 Jamesville Avenue
Syracuse, New York 13210
(315) 425-4685

Tompkins-Seneca-Tioga BOCES SETRC

555 South Warren Road
Ithaca, New York 14850
(607) 257-1551 Ext. 276

Ulster BOCES SETRC

175 Route 32 North
New Paltz, New York 12561
(914) 255-1402

Washington-Warren-Hamilton-Essex BOCES SETRC

Southern Adirondack Education Center
Dix Avenue
Hudson Falls, New York 12839
(518) 793-7721 Ext. 219

Westchester-Putnam #1 BOCES SETRC

Pinesbridge Road, Walden School
Yorktown Heights, New York 10598
(914) 245-1050 245-2700

Westchester #2 BOCES SETRC

Learning Resource Center
Concord Road
Ardsley, New York 10502
(914) 693-7576

Yonkers City SETRC

School #32 Dexter Road
Yonkers, New York 10701
(914) 963-0592

Coordinating Office

New York State Education Department
Office for Education of Children with
Handicapping Conditions
Division of Program Development
Albany, NY 12234
(518) 474-8917 or 2251